REMARKS/ARGUMENTS

Favorable reconsideration of this application as currently amended and in view of the following remarks is respectfully requested.

Claims 1-10 and 12-14 are currently active in this case. Claim 11 has been cancelled. Claims 1 and 3 have been amended, and Claims 12-14 has been added by the current amendment. No new matter has been added. Regarding the change to Claim 1 and newly added claims 12-14, see by way of non-limiting example, page 14, line 15 to page 15, line 5 of the specification. Regarding the changes to Claim 3, see by way of non-limiting example, page 23, lines 6-27 of the specification.

In the outstanding Office Action, Claims 1, 2 and 11 were rejected under 35 USC 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0178144 to Ohmi et al. in view of U.S. Patent No. 6,053,984 to Petvai et al.; Claims 3 and 4 were rejected under 35 USC 103(a) as being unpatentable over Ohmi et al. in view of U.S. Patent Publication No. 2003/0126872 to Harano et al.; and Claims 7 and 8 were rejected under 35 USC 103(a) as being unpatentable over Ohmi et al. in view of Harano et al. and U.S. Patent No. 5,660,047 to Paganessi. Applicants respectfully traverse.

Briefly recapitulating, the present invention (Claim 1 as amended) is directed to a plasma processor including, among other things, a cooling medium channel through which a cooling medium cooling the process gas supply parts flows; and a cooling medium mixer to generate and supply the cooling medium to the cooling medium channel of a process gas supply part. The cooling mixer includes: a mist source to generate the mist by atomizing supplied H_2O using an ultrasonic wave; and a mixing part to mix the cooling gas and the mist into the cooling medium.

The Official Action acknowledges that Ohmi et al. fails to teach a cooling medium mixer to mix a cooling gas and mist into the cooling medium and supply the cooling medium

to the cooling medium channel of the process gas supply part. Applicants agree. However, the Official Action asserts that Petvai et al. teach a cooling medium mixer and that it would have been obvious to add the cooling medium mixer to the Ohmi et al. apparatus. Applicants respectfully traverse.

The Official Action relies on the second mist generator 43 of the Petvai et al. reference as teaching "a cooling medium mixer" recited in claim 1. However, nothing cited in the passages identified in the Office Action (Fig. 4 and col5, line 7 to col.6, line 45) or any other portions of the Petvai et al. reference teaches or suggests that the second mist generator 43 generates "the mist by atomizing supplied H_2O using an ultrasonic wave". Further, the Petvai et al. reference also fails to teach or suggest "a mixing part to mix the cooling gas and the mist into the cooling medium". According to column 5, lines 56-58 of the Petvai et al. reference, the second mist generator 43 merely "provide a mist of water droplets in a nitrogen carrier gas which is applied...to cool the wafer surface." Thus, the second mist generator 43 does not mix any cooling gas with the mist. Nothing in any other portions of the Petvai et al. reference teaches or suggest mixing any cooling gas with the mist either.

For at least the reason set forth above, Petvai et al. do not remedy the deficiencies of Ohmi et al. Thus, failing to establish a *prima facie* case of obviousness for claim 1. Accordingly, the rejection of claim 1, as well as the rejection of claim 2 depending therefrom, should be withdrawn.

Claims 3 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ohmi et al. in view of Hirano et al. (US 2003/0126872).

Claim 3 has been amended to recite, *inter alia*, "the processing gas supply part being attached to the processing vessel through a heat insulating part". The Official Action relies on the process gas supply mechanism 31 of the Ohmi et al. reference as teaching "a processing gas supply part" recited in claim 3. However, nothing in the Ohmi et al. reference

teaches or suggests that the process gas supply mechanism 31 is attached to the processing vessel 11 through a heat insulating part. The Hirano et al. reference does not remedy that deficiency as it fails to teach or suggest the above-noted feature of claim 3.

For at least the reason set forth above, the combination of Ohmi et al. and Hirano et al. do not teach or suggest each and every element of the claimed invention, thus failing to establish a *prima facie* case ob obviousness regarding claim 3. Accordingly, the rejection of claim 3, as well as the rejection of claim 4 depending therefrom should be withdrawn.

Dependent Claims 5-10 and 12-14 are believed to be allowable for at least the same reasons that their respective independent claims are believed to be allowable.

In view of the foregoing, no further issues are believed to remain. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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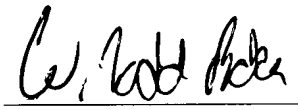

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